WE CLAIM:

- 1. A graphite capsule/vessel for producing boron nitride which has a cross-sectional area that allows reaction contents to be uniformly heated in order to yield boron nitride in a uniform consistency of crystallinity and purity and allows the reaction gaseous products to readily evolve.
- 2. The capsule/vessel of claim 1 where the thickness is in the range of 0.09 to 0.75 inches.
- 3. The capsule/vessel of claim 1 where the thickness is in the range of 0.25 to 31 inches.
- 4. The capsule/vessel of claim 1 where the gaseous products evolve from an opening that has a width of approximately one-half of the diameter of the capsule/vessel and has a length substantially the same as the capsule/vessel.
- 5. The capsule/vessel of claim 1 where the gaseous product evolve from an opening which is approximately 50% of the longitudinal cross-sectional area of the capsule/vessel.
- 6. The capsule/vessel of claim 1 where the cross-sectional area is in the range of 10 to 115 sq. inches.